**Bladder wrack**

***Fucus vesiculosus***

**Class:** brown algae *Phaeophyceae*

**Order:** fucoids *Fucales*

**External appearance**

The bladder wrack is a dark olive-brown alga that grows attached to a hard, rocky substrate at depths of 1 to 6 m. It can grow up to 2 m long. Bladder wrack has a midrib (primitive vascular tissue) and air bladders that help the alga stay upright in water.

**Distribution**

A species with a wide range, common in the Arctic and cold temperate regions and on the eastern and western Atlantic coasts; also found in the Pacific.

**Nutrition**

Undergoes photosynthesis using sunlight and substances dissolved in water.

**Reproduction and development**

Reproduces by spores. Bladder wrack is a dioecious organism – it has male and female individuals; these are externally indistinguishable. The gametes mature in conceptacles, special cavities in the tips of the algal fronds. Reproduction takes place on nights when there is a full or new moon.

**Uses**

Iodine and other elements were once extracted from bladder wrack. It used to be fed to physically weak children to help them grow. Today *Fucus* species are used in cosmetics and food additives. People living along the coast harvest it and use it as a rich source of fertiliser. Bladder wrack that has washed ashore serves as good feeding grounds for wading birds due to the invertebrates, such as small crustaceans, that wash up along with it.

**Interesting facts**

Bladder wrack meadows are an important habitat for many invertebrate species and an important spawning ground for fish. The meadows need light to grow, and are therefore threatened by reduction in water transparency due to eutrophication. Bladder wrack meadows die off after incidents in which petroleum products have been released into the water.